

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on policies and practices for advanced metering, demand response, and dynamic pricing.

Rulemaking 02-06-001
(Filed June 6, 2002)

**ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE'S
RULING CALLING FOR A TECHNICAL CONFERENCE TO BEGIN
DEVELOPMENT OF A REFERENCE DESIGN, DELAYING FILING DATE
OF UTILITY ADVANCED METERING INFRASTRUCTURE APPLICATIONS,
AND DIRECTING THE FILING OF RATE DESIGN
PROPOSALS FOR LARGE CUSTOMERS**

On October 15, 2004, Pacific Gas and Electric Company (PG&E) filed its preliminary advanced metering infrastructure business case analysis in compliance with our July 21, 2004 ruling. San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) filed their preliminary analyses on October 22, 2004. The July 21, 2004 ruling identified numerous scenarios to analyze and assumptions to be described or specified. None of the utilities have fully complied with our directives in the July 21, 2004 ruling although all three have completed much of the analysis that was required.

Our July 21, 2004 ruling had established December 15, 2004 as the date by which each utility was to file an application for a particular advanced metering infrastructure deployment strategy and the associated justification, timing, costs, and cost recovery based on the results of their analysis. PG&E has since filed a motion seeking delay of the application until March 15, 2005. SCE supports the request. After reviewing the preliminary analyses, we conclude that additional

analytical work is necessary before the utilities will be ready to file their applications for advanced metering infrastructure deployment. Thus, we move back the filing date for the applications to March 15, 2005.

This delay will have the added benefit of allowing the California Energy Commission to host a technical conference to begin the process of developing open architecture standards for advanced metering infrastructure. In particular, we are focused on the need for a reference design that will accomplish uniform business practices and data exchange standards. Free flow of data (subject to security and privacy concerns, of course) is crucial to the economics of the investment we are considering and the long-term viability of the systems the utilities will consider installing. Ideally, we would like to see national standards for data exchange so that providers of advanced metering communications infrastructure will see the same standards in all venues where they seek to market. This uniformity helps lower costs to consumers everywhere.

As a first step, the California Energy Commission has agreed to host a technical conference on a reference design for uniform business practices and data exchange standards and report back to us on the utilities' progress towards developing such standards by January 30, 2005. The technical workshop may also consider a reference design for meter hardware, if appropriate. The California Energy Commission should provide notice of the technical conference to the service list for this (or successor) proceeding.

By January 12, 2005, the utilities should complete the analysis that was required by our July 21, 2004 ruling that was not included in their October filings. For example, some utilities did not perform analysis of outsourcing funding and implementation approaches as required, include a description of the functionality of the meter and network systems they analyzed and discuss the

tradeoffs they made to reach their decision on meter and network functionality, or identify the costs/benefits to customers greater than 200 kW. At a minimum, by January 12, 2005, the utilities should complete, file, and serve the analysis that was required by the July 21, 2004 ruling.

Although the utilities will file new applications, now due March 15, 2005, laying out their preferred advanced metering infrastructure deployment strategy, we expect that the applications be handled in a consolidated fashion. After reviewing the preliminary analyses, we have concluded that in the applications, in addition to its preferred advanced metering infrastructure deployment strategy, each utility should include the benefit-cost results for at least one full and one partial advanced metering infrastructure deployment scenario. The utilities may, at their discretion, collapse the numerous cost categories set forth in the July 21, 2004 ruling into the six larger heading groups but benefits should still be described at the more detailed level required in the ruling. However, the utilities should provide an estimate of the purchase and installation costs of the advanced metering infrastructure system proposed in each scenario by customer class and on a per customer basis (for each class).

We note that SCE's preliminary analysis suggests that SCE will not recommend either full or partial deployment as a result of its analysis. SCE should still file an application on March 15, 2005 that, at a minimum, contains the best full and partial deployment scenarios analyzed and any recommended steps that SCE will take to capture the system and customer benefits that we have identified as coming from deployment of advanced metering infrastructure.

In addition to the elements of the application that we described in the July 21, 2004 ruling and elsewhere in this ruling, we believe that some additional information would be useful to the Commission's analysis of the business case

application that will be filed in March. In particular, for each scenario in the application, we direct the utilities to provide:

1. A breakdown of the expected demand response benefits between those customers who currently have meters and those who would receive meters under the proposed deployment plan;
2. The expected values (in addition to the range) of the costs and benefits from the proposed deployment strategy that are the outputs of the Monte Carlo simulation analysis;
3. An analysis of customer bill impacts if customers stay on the default rate assumed in the scenario, assuming customer usage patterns do not change, both with and without fixed meter charges and the AB1X rate constraint;
4. Sensitivity analyses (both high and low) around the capacity and energy values utilized;
5. The annual energy use impacts associated with each rate utilized;¹
6. The costs assumed for residential control technologies used in the analysis, including smart thermostats and load control switches, and the assumed level of benefits, on a per household basis, associated with use of these control technologies;
7. A clear description of the assumptions regarding accelerated cost recovery, ratebase, and tax treatment of existing metering and communication systems that would be replaced under the utility's proposed deployment of advanced metering infrastructure.

¹ In other words, does the tariff structure assumed result in overall reduced energy usage (conservation impact), shift of load (no overall impact), or increased energy usage?

Because deployment of advanced metering infrastructure is a significant cost and operational undertaking, as part of the cost recovery proposals the utilities will present in their applications, we are open to reviewing proposals about how the risks and rewards from deploying these systems should be allocated between ratepayers and shareholders.

By approving the delay to March 15, 2005, the parties will have additional time to review the preliminary data, the utilities will have additional time to complete the analytical work that they did not complete before October 15 and 22, 2004 respectively and reflect the results of the 2004 Statewide Pricing Pilot results and 2004 load impact studies in their analysis, and reflect an open architecture approach to infrastructure deployment. We recognize that this delay means that a decision on deployment of advanced metering infrastructure will not be possible by Summer 2005 as we had hoped.

In addition, it is clear from reviewing the preliminary analyses, that the utilities believe that it will not be cost effective to deploy an advanced metering infrastructure without implementing significant changes to rate design in order to capture potential demand response benefits. Most large customers already have interval meters in place, but the communications and billing infrastructure associated with these meters is not necessarily in place yet. Independent of any Commission decision on their upcoming advanced metering infrastructure applications, the utilities should move immediately to fully utilize and integrate the capabilities of the existing advanced meters installed at large customer premises into their operations.

The March 15, 2005 applications will not contain technical rate design proposals, but clearly the rate design assumptions they utilize will impact the cost benefit analysis. In addition, the parties have pointed out that the

Commission's interpretation of Assembly Bill 1X may limit our ability to make significant changes to rates or rate design for all customer classes, should that be desirable, in the near term. We recognize that the rate design framework modifications that are required to achieve maximum benefits from installation of advanced metering infrastructure likely require rethinking the proper default tariff, the objectives of the rate design (maximum price response vs. cost-based pricing), proper planning horizons, and many other complex and difficult issues. Utilizing the most recent cost allocation to customer classes adopted in the utilities' rate design proceedings, we must make it a priority to tackle these issues. A subsequent ruling will lay out our planned timeframe for pursuing rate design changes.

Therefore, **IT IS RULED** that:

1. By January 12, 2005, the utilities shall complete, file, and serve the analysis that was required by the July 21, 2004 ruling.
2. The filing date for the applications for a particular advanced metering infrastructure deployment strategy and the associated justification, timing, costs, and cost recovery is moved to March 15, 2005.
3. The California Energy Commission shall host a technical conference on a reference design for uniform business practices and data exchange standards and report back to us on the utilities' progress towards developing such standards by January 30, 2005.
4. The utilities shall move immediately to fully utilize and integrate the capabilities of the advanced meters installed at large customer premises into their operations.

Dated November 24, 2004, at San Francisco, California.

/s/ MICHAEL R. PEEVEY

Michael R. Peevey
Assigned Commissioner

/s/ MICHELLE COOKE

Michelle Cooke
Administrative Law Judge

CERTIFICATE OF SERVICE

I certify that I have by mail, and by electronic mail to the parties to which an electronic mail address has been provided, this day served a true copy of the original attached Assigned Commissioner and Administrative Law Judge's Ruling Calling for a Technical Conference to Begin Development of a Reference Design, Delaying Filing Date of Utility Advanced Metering Infrastructure Applications, and Directing the Filing of Rate Design Proposals for Large Customers on all parties of record in this proceeding or their attorneys of record.

Dated November 24, 2004, at San Francisco, California.

/s/ FANNIE SID

Fannie Sid

N O T I C E

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